

Remarks

Claims 1-20 are pending in the application. Claims 1-20 are rejected. Claims 1 and 16 are amended. All rejections and objections are respectfully traversed.

Claims 1 and 16 are amended to more clearly indicate the scope of the invention and to advance the application to allowance. No new subject matter is added.

The claimed invention is an identification tag in the form of a single microcircuit comprising a memory, an optical transceiver, and a radio transceiver. During system operation, at least one of the transceivers operates in a receive mode, and at least one of the transceivers operates in a transmit mode. The receiving and transmitting transceivers can be the same or different. The 'receiving' transceiver, upon detecting a received signal (i.e., an optical signal, a radio signal, or both) on its associated channel, causes the 'transmitting' transceiver to respond with a transmitted signal (i.e., an optical signal, a radio signal, or both). The tag can also have both transceivers operate in both modes concurrently. In addition, the optical signal may be in the form of visible light.

Claims 1 and 6-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sitnik (U.S. Patent No. 6,300,880).

Sitnik describes a multi-component system suitable for allowing customers to receive product information while browsing a store.

The Examiner states that “since the preambles of applicant’s claims set forth an intended use of the structure or method steps, the preambles have not been considered as limiting the claims.” This is simply not the case. The Examiner is attempting to read an important limitation, i.e., that the invention is in the form of a single microcircuit, out of the claims.

MPEP 2111.02(I) states that “[a]ny terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.” The terminology “in a form of a single microcircuit” found in the preambles of claims 1 and 16 clearly limits the structure of the claimed invention to that of a single microcircuit and, therefore, *must* be treated as a claim limitation.

MPEP 2111.02(II) states that “[t]he determination of whether preamble recitations are structural limitations or mere statements of purpose or use ‘can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim.’ *Corning Glass Works*, 868 F.2d at 1257, 9 USPQ2d at 1966.” A review of the record clearly shows that the claimed invention is an identification tag disposed on a single microcircuit and an identification method employing the claimed identification tag. The words in the preamble are not, as the Examiner supposes, a ‘mere statement of purpose,’ but an actual structural limitation.

Furthermore, MPEP 2111.02(II) indicates that “statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim.” Additionally, citing *Metabolite Labs., Inc. v. Corp. of Am. Holdings*, 370 F.3d 1354, 1358-62, 71 USPQ2d 1081, 1084-87 (Fed. Cir. 2004), a “preamble may provide context for claim construction, particularly, where ... that preamble’s statement of intended use forms the basis for distinguishing the prior art in the patent’s prosecution history.”

Thus, it is quite apparent that the words “in a form of a single microcircuit” are, as opposed to the Examiner’s interpretation, a limitation of the claims. They state a structural limitation of the invention, not merely an intended use. The record unambiguously shows that the invention is intended to cover identification tags in the form of a single microcircuit, and that this purpose results in structural and manipulative differences from the prior art.

In order to move this application to allowance, claims 1 and 16 have been amended to explicitly include the microcircuit element.

Sitnik describes a system to be employed in a store and used by consumers seeking information on products they are interested in purchasing, see column 3, lines 38-40. Consumers browse a store and use a barcode scanner

to receive information on a product, see column 6, lines 38-61. The invention of Sitnik could never be deployed on a single microcircuit. Sitnik can never anticipate the claimed invention.

MPEP 2131 explicitly states that in order to anticipate a claim “each and every element as set forth in the claims” must be found in the prior art reference.” The identical invention must be shown in as complete detail as is contained in the ... claim.” The Examiner’s rejection ignores explicit limitations recited in claims 1 and 6-20.

Regarding claim 1, claimed is an identification tag comprising an optical transceiver, a radio transceiver, a memory storing an identification code connected to the optical transceiver and the radio transceiver, means for operating at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode, and means for transmitting the identification code by the transceiver operating in the transmit mode in response to receiving a predetermined signal by the transceiver operating in the receive mode.

The Examiner states that “receivers and transmitters associated with the optical and radio transceivers and any other components required for receiving and transmitting” teaches the claimed means for operating at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode. This is not true. Merely having receivers and transmitters, as Sitnik does, does not teach the claimed means. For example,

Sitnik cannot switch between receiving and transmitting modes based on the received signal.

As best as can be determined, Sitnik teaches a barcode reader with the added functionality of being able to play music files retrieved from a database.

Applicants respectfully request that the Examiner explain how a barcode reader can anticipate a microcircuit identification tag that can respond to a received optical and/or radio signal with a transmitted optical and/or radio signal.

Regarding claim 6, claimed is an identification code including one or more dates. The Examiner states that “[s]ince the structure of Sitnik is capable of storing and/or transmitting dates, Sitnik meets the claimed limitations.” The capability of storing and/or transmitting dates is not what is claimed. Sitnik does not teach an identification code including one or more dates and the Examiner merely points out that Sitnik can store and transmit dates. Sitnik does not teach the claimed invention.

Regarding claim 7, claimed is an identification tag in which the received signal is a light signal and the transmitted signal is a radio signal. Regarding claim 8, claimed is an identification tag in which the received signal is a radio signal. Sitnik does not teach an identification tag in the form of a single microcircuit. Sitnik cannot anticipate the claimed invention.

Regarding claims 9-11, claimed are means for operating at least one of the transceivers in receive mode and transmit mode while operating the other

transceivers in transmit mode; means for operating at least one of the transceivers in receive mode and transmit mode while operating the other transceivers in receive mode; and means for operating at least one of the transceivers in receive mode and transmit mode while operating the other transceivers in receive mode and transmit mode. As was explained above regarding claim 1, merely having receivers and transmitters, as Sitnik does, does not teach the claimed means. Sitnik cannot anticipate the claimed invention.

Regarding claim 12, claimed is means for synchronizing the transmitting and receiving according to receiving light. The Examiner states that waiting for the optical channel to be clear as described in Sitnik at step 75, Figure 7, teaches the claimed synchronization. This is not the case. A determination that an optical channel is clear is not a synchronization, which is generally understood to be operation of two or more steps in unison. Sitnik either prevents or allows transmitting or receiving; there is no synchronization involved. Sitnik does not anticipate the claimed means for synchronizing the transmitting and receiving according to receiving light.

Regarding claim 13, claimed is an optical transceiver that is omnidirectional. Regarding claim 14, claimed is an optical transceiver that is narrow beam. Again, Sitnik describes a multi-component system suitable for allowing customers to receive product information while browsing a store. Sitnik does not teach an identification tag in the form of a single microcircuit.

Regarding claim 20, claimed is an identification reader comprising an optical transceiver transmitting a predetermined optical signal, and a radio transceiver receiving an identification code transmitted when receiving the predetermined optical signal by an identification tag. Sitnik does not teach a predetermined optical signal. Sitnik illuminates a barcode on a product and uses the barcode to find a song to play to a customer. Shining a light on a barcode is not transmitting a predetermined optical signal. Sitnik cannot anticipate the claimed invention.

Regarding the remaining 102(b) rejections of claims 15-19, the Examiner provides no support for his rejections. Applicant can find nothing in the Office Action that relates to the rejections of claims 15-19.

The Examiner's assertions are nothing more than an omnibus rejection and provides no reasonable level of understanding of the basis for the Examiner's position. As recognized in MPEP 707.07(d), "omnibus rejection of the claim ...is usually not informative and should therefore be avoided."

Again, MPEP 2131 explicitly states that in order to anticipate a claim "each and every element as set forth in the claims" must be found in the prior art reference." The identical invention must be shown in as complete detail as is contained in the ... claim." The Examiner's rejection ignores explicit limitations recited in claims 15-19.

MPEP 707.07(f) further mandates that "where a major technical rejection is proper, it should be stated with a full development of the reasons rather than

by a mere conclusion coupled with some stereotyped expression.” The rejection by the Examiner is a mere conclusion, without a full development of reasons.

MPEP 706.07 further makes clear that “the invention as disclosed and claimed should be thoroughly searched in the first action and the references should be fully applied.”

In the present application, the rejection fails not only to provide a reasonable rationale as to how, in the examiner’s view, the applied art can be construed to teach each and every feature in the rejected claims, but the rejection also fails to even consider explicitly claimed features of the invention as recited in claims. Applicant respectfully requests that the Examiner withdraw his rejections or provide support for his conclusions.

Sitnik does not teach an identification method comprising storing an identification code in a memory connected to an optical transceiver and an radio transceiver, operating at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode, and transmitting the identification code by the transceiver operating in the transmit mode in response to receiving a predetermined signal by the transceiver operating in the receive mode.

Sitnik does not teach an identification tag in a form of a single microcircuit, comprising a memory storing an identification code, an optical transceiver for receiving a predetermined optical signal, and a radio transceiver for

transmitting the identification code stored in the memory when receiving the predetermined optical signal by the optical transceiver.

Sitnik does not teach an identification tag wherein the optical transceiver transmits an optical signal, the radio transceiver receives a radio signal, and further comprising means for operating at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode, and means for transmitting the identification code by the transceivers operating in the transmit mode in response to receiving a predetermined signal by the transceivers operating in the receive mode.

Sitnik does not teach an identification method comprising receiving a predetermined optical signal at an optical communication transceiver in an identification tag and transmitting an identification code stored in memory by a radio communication transceiver when receiving the predetermined optical signal by the optical communication transceiver.

Sitnik does not teach an identification method further comprising operating at least one of the communication transceivers in receive mode while operating at least one of the communication transceivers in transmit mode, and transmitting the identification code by the communication transceiver operating in the transmit mode in response to receiving a predetermined signal by the communication transceiver operating in the receive mode.

Sitnik cannot anticipate the claimed invention.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sitnik (U.S. Patent No. 6,300,880) in view of Gloton (U.S. Patent No. 5,635,701).

Regarding claim 2, claimed is an optical transceiver including a single photodiode configured to transmit and receive light signals

As a first point, Sitnik cannot be used to render the invention obvious, either alone or in combination with any reference. Sitnik teaches a system to be employed in a store for shoppers, see column 10, lines 11-13. No person skilled in the art would look to Sitnik to design an identification tag in the form of a single microcircuit. Sitnik is clearly nonanalogous art and may not be relied upon to reject the invention under 35 U.S.C. 103(a).

Secondly, the Examiner states that Sitnik fails to teach the optical transceiver including a single photodiode configured to transmit and receive light signals. The Examiner further states that Gloton teaches this limitation. Gloton describes a portable device for linking a chip card to a central processing unit. Clearly, Gloton is not combinable with Sitnik. Gloton is concerned with communication linking within a CPU. A person skilled in the art of the invention would not look to Gloton to cure the defects of Sitnik. Gloton cannot be used to render the invention as claimed obvious.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitnik (U.S. Patent No. 6,300,880) in view of Beigel et al. (U.S. Patent No. 6,784,788).

Again, Sitnik cannot be used to render the invention obvious, either alone or in combination with any reference. Sitnik teaches a system to be employed in a store for shoppers, see column 10, lines 11-13. No person skilled in the art would look to Sitnik to design an identification tag in the form of a single microcircuit. Sitnik is clearly nonanalogous art and may not be relied upon to reject the invention under 35 U.S.C. 103(a).

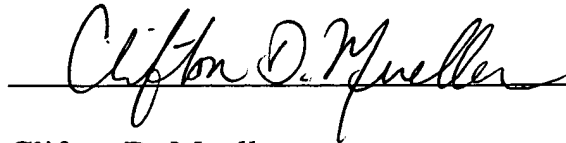
Regarding claim 3, claimed is a radio transceiver including an antenna formed as an induction coil. In claim 4, the induction coil acquires power for the optical transceiver. In claim 5, the tag includes means for storing the power. The Examiner states that Sitnik fails to specifically teach the radio transceiver including an antenna formed as an induction coil, the induction coil acquiring power for the optical transceiver, and means for storing the power. The Examiner also states that Beigel teaches the claimed limitations. However, Beigel does not cure the defects of Sitnik. Beigel does not teach means for operating at least one of the transceivers in receive mode while operating at least one of the transceivers in transmit mode. Sitnik as modified by Beigel cannot make the claimed invention obvious.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicant's agent

at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-0749.

Respectfully submitted,
Mitsubishi Electric Research Laboratories, Inc.

By

A handwritten signature in cursive script, reading "Clifton D. Mueller", is written over a horizontal line.

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